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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,161	10/22/2003	Gianni Borghi	U 014865-4	6515

7590 04/05/2006
LADAS & PARRY
26 West 61st Street
NEW YORK, NY 10023

EXAMINER

CHARLES, MARCUS

ART UNIT PAPER NUMBER

3682

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,161

Applicant(s)

BORGHI, GIANNI

Examiner

Marcus Charles

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04-12-2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is the first action relating to serial number 10/691,161 filed 10/22/2003 filed 10/22/2006.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The examiner has accepted the drawing filed with this application as formal drawing.

Information Disclosure Statement

3. The information disclosure statement filed 4/12/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The three Japanese references listed on the IDS are not considered because copies of the references are not provided. However, the abstract of the references are considered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 5, it is not clear if the claim should be treated as a dependent claim or if the claim is dependent on claim 1. They cannot depend from an element of another claim but from the whole claim and must be written so as to depend from the whole claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claim 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by JP (2002-227949) to Sakai. Sakai discloses the CVT as claimed including an axial thrust compensating device (23/30) comprising a first cam means (30, 23a and the curved area adjoining 23a to 24 see attached drawing) interposed between the fix pulley half (12) and the movable pulley (14) half to generate axial thrust on the movable pulley half in the compression direction of the belt (5) in response to the drive torque; the compensating device comprises a second cam means (30, 32b and curved area adjoining 23b to 24, see attached drawing) interposed between the fix pulley half and the movable pulley half to generate axial thrust on the movable pulley half in the compression direction of the belt in response to a braking force.

In claim 2, it is disclosed that the first and second cam means comprise at least

one slot carried by one half pulley (14) and the cam follower carried by the other half pulley (12) and the first and second cam slot means being defined by respective sides 23a/23b (including the curve adjoining 23a/b to 24) defining the slot (23) of the cam circumferentially and the sloping in opposite directions at least along respective portions.

In claim 3, note the axial portion of (24). It is apparent the belt is at its maximum clamping force when the roller is in the straight slot along the axis and thus the pulley is at the maximum speed range.

In claim 4, it is apparent that the sleeve (21) is integral with the movable half pulley (14) and slidable on the hub (13a) of the fix pulley.

In claim 5, Sakai discloses the claimed invention in fig. 4

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai in view of Kitai et al. (6,733,406) Sakai discloses the claimed invention including the control device (see attached drawing and a the half pulleys (12/14) being loaded by a spring (15) and acting on the pulleys in the same direction of the compensating device. Sakai does not disclose as to whether or not the control device is a centrifugal control device. Kitai et al. discloses the variable speed drive comprising a centrifugal control

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device (42-47) that moves the movable driving pulley according to the speed of the shaft and to maintain the transmission ratio depending on the required driving torque and the speed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the control device of Sakai so that it is a centrifugal control device in view of Kitai et al. in order to axially move the movable pulley according to the rotational speed of the shaft and the required torque of the system.


Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP (58-142060), JP (63-67453), JP (11-173392), JP (11-257447), JP (05-60192), JP (60-280952), JP (05-87202), JP (59-170552), Togami et al. (4,173,155), Tacquet (2,951,388), Paulus (2,155,351) and Laughlin (3,605,510) discloses a CVT variable diameter torque sensing drive with cam and cam follows.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Marcus Charles
Primary Examiner
Art Unit 3682
March 30, 2006

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(6)

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9

10

の正面図である。

【図9】同低速時の正面図である。

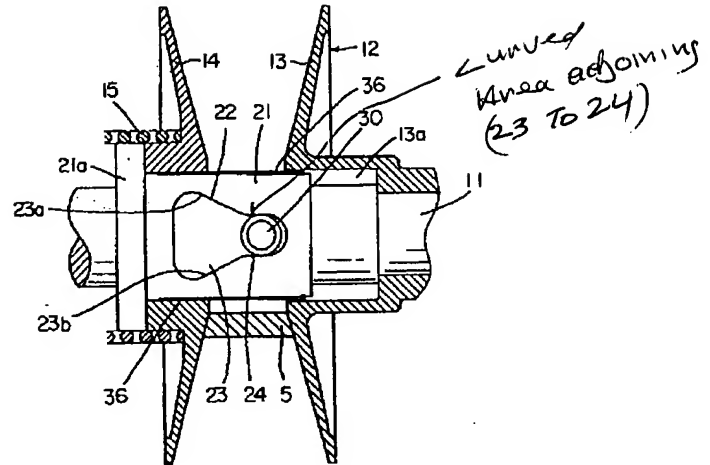
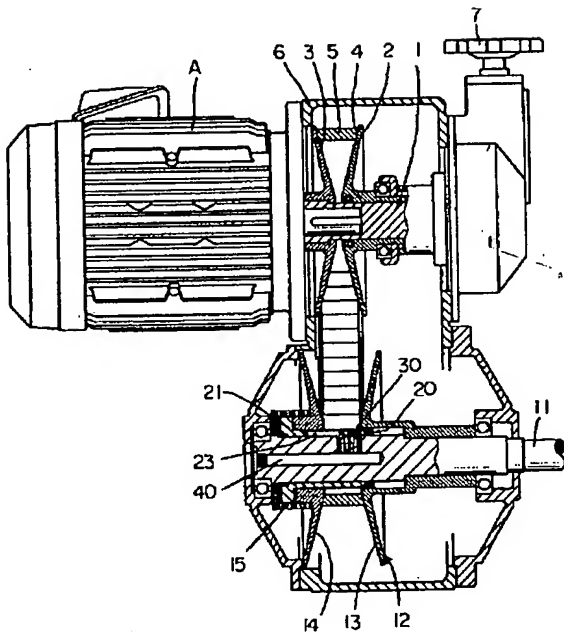
【符号の説明】

- 1 駆動軸
- 2 可変プーリ
- 11 従動軸
- 12 可変プーリ
- 13 固定プーリ
- 14 可動プーリ
- 15 バネ
- 20 トルクカム装置

- 21 可動ボス部材
- 22 カム面
- 23 三角形のカム孔
- 24 溝孔
- 30 カムフォロア
- 33 リング
- 34 オイル孔
- 35 オイル孔
- 40 オイル貯留部
- 10 43 オイル孔

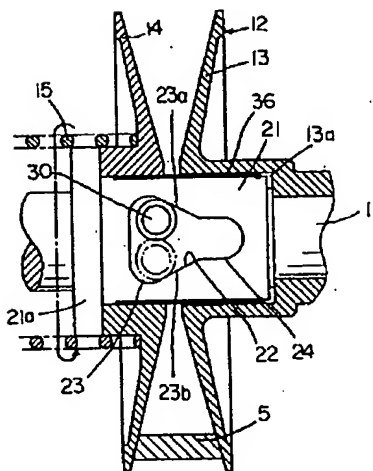
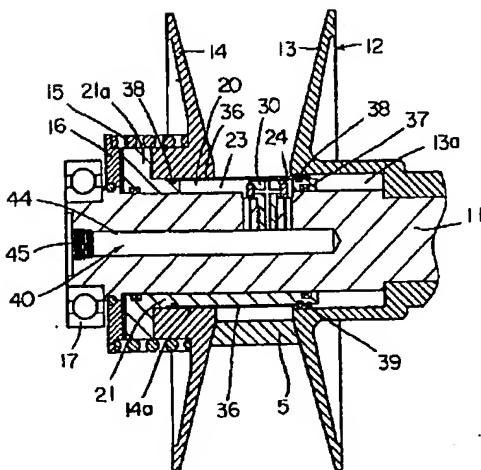
【図1】

【図2】



【図3】

【図4】



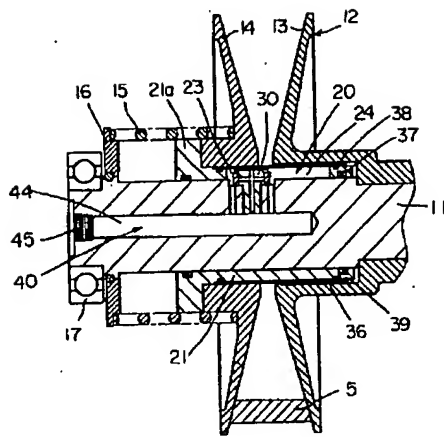
MARCUS CHARLES
PRIMARY EXAMINER

10/69,161

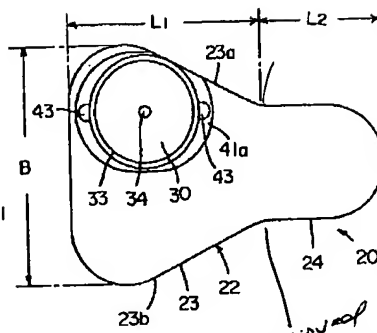
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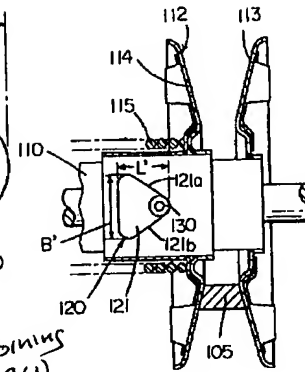
【図5】



【図6】



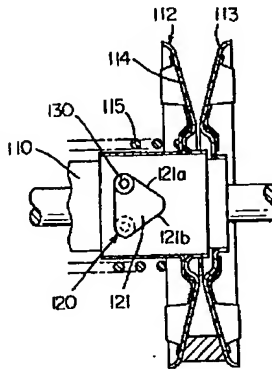
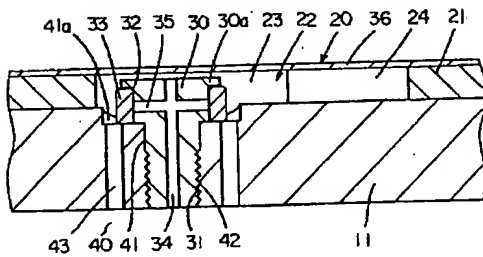
【図8】



【図9】

Curved Area adjoining (23 To 24)

【図7】



MARCUS CHARLES
PRIMARY EXAMINER